

the left side. This, at any rate, is another case pointing to the seat of the faculty somewhere in the neighbourhood of the place mentioned by Broca. Whether extravasation of blood in the brain substance, injury of substance itself, we know not; but we conjecture one or both of these to be the cause of the symptoms in this case.

REMARKS ON A CASE OF CHLOROFORM POISONING.

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T. D., æt 60 took about half an ounce of chloroform, mistaking it for spiritus chloroformi. I was called about ten minutes after and found him nearly insensible; Five or six minutes later he was perfectly unconscious; the eyeballs became insensible to the touch, the respirations shallow and prolonged, and the pulse so feeble as to be scarcely perceptible at the wrist. Mustard was applied to the pit of the stomach, with the hope of inducing vomiting, and to the nape of the neck and calves of the legs. I also attempted to inject Ammonia and Brandy, into the rectum, but the sphincter ani was paralysed, and everything escaped as fast as injected. The breathing continued to become feebler and the expirations being cold, I tried keeping up artificial respiration after a fashion by compressing the chest with my hands about fifteen or sixteen times a minute and allowing it to expand, which I did for nearly an hour when the respirations became more natural, and the eyeballs began to show signs of returning sensation. In half or three quarters of an hour more the patient was able to sit up and take a little weak brandy and water, after which he slept well for the rest of the night. Except a little headache and feeling of weariness next day, no bad effects followed.

The chief interest of this case is from its rarity. I have only been able to find four recorded, two by Mr. Spence, as having occurred in the Royal Infirmary, Edinburgh, reported in the "Lancet," August 9th, 1856. In one of these, two ounces was swallowed, the patient was unconscious for five hours; the respirations which at one time went as low as seven in the minute, being kept up by the application of a galvanic battery. Recovery was complete four days after, when the

patient returned to her work, which was that of a nurse. Mr. Spence's other case was that of an inmate of the Infirmary, who swallowed six ounces; the same treatment was adopted, with recovery from the anæsthesia, but death took place forty-eight hours after from acute gastritis. Mr. Spence deprecates the use of alcoholic stimuli, and advises ammonia in such cases, on the theoretical ground that the chloroform causes an excess of carbon in the blood which would be increased by alcohol. The third case is reported by Mr. Wells in the "Lancet" of February 19th, 1870. The patient in this case attempted to commit suicide by swallowing half an ounce of chloroform. Unconsciousness lasted about two hours, and artificial respiration was maintained by the use of electricity. In each of these cases the stomach pump was used within three quarters of an hour from the taking of the chloroform, but no trace of the drug could be detected in the matter withdrawn. The fourth case is recorded by Dr. Neild, of Melbourne, in the "Australian Medical Journal," for April, 1871. The patient, who had been on a debauch for several days, swallowed an ounce of chloroform. The treatment adopted in this case was injection of dilute liq. ammonia into the veins of the arms; two drachm were thus given, and partial recovery took place, but death occurred thirty-six hours afterwards preceded by incoherence and illusions.

It would be difficult to determine from these cases what is a fatal dose of chloroform, as although in Dr. Neild's case death occurred from one ounce taken internally, yet as the man was suffering from delirium tremens at the time, we can scarcely say how far death was owing to the poison. The symptoms in those cases where only half an ounce was taken seemed to threaten immediate death, yet recovery took place without any bad after-effects, and Sir Dominic Corrigan records a case, (Dublin Hospital "Gazette," November 15th, 1854.) where a patient suffering from delirium tremens swallowed a six ounce mixture containing over half an ounce, without any evil effect, the patient slept well after taking it and recovered free from delirium. The late Mr. Nunneley, in 1848 published the results of an elaborate series of experiments with various anæsthetics from which he concluded that the ethers and chloroform were almost inert when administered internally, unless given in very large